BRUHAT BANGALORE MAHANAGARA PALIKE

PROJECT DIVISION YELAHANKA ZONE

DETAILED COST ESTIMATE

Package-03

Name of Work : 1. Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura.

2. Improvements to Roads and Drains of Byregowda Layout and other Surrounding areas in Ward No. 07 Byatarayanapura.

3. Improvements to roads and drains at UAS Layout in Ward No.07

SL NO	DESCRIPTION	AMOUNT IN LAKHS
1	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura	10000000
2	Improvements to Roads and Drains of Byregowda Layout and other Surrounding areas in Ward No. 07 Byatarayanapura	5000000
3	Improvements to roads and drains at UAS Layout in Ward No.07	5000000
	TOTAL AMOUNT	**20000000**
	Rupees Two Crore Only	

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore
Asst Executive Engineer
Project Yelahanka Division

Executive Engineer
Yelahanka Division

Administrative Approval
Accorded For Rs.200.00 Lakhs
Head of A/C P-3075
CER NO : 57 Dt:: 22/02/19

E.E. (Project)

Technical Sanction
Accorded For RS 2 W: Laechy
Head of A/C P-3075
CER NO : JS/US/184 Dt:: 21.06.18

TA CE (YNK)

BRUHAT BANGALORE MAHANAGARA PALIKE

Project:10. Improvement to Roads and Drains of Sahakarnagar A,E,F,G Blocks and Surrounding area in Ward No.07

Est Cost: =100.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Sahakarnagara								
	15th Main Road		2	225.00	0.50	0.40	90.00		
	16th Main Road		2	215.00	0.50	0.40	86.00		
	22nd Cross Road		2	270.00	0.50	0.40	108.00		
	17th main Road		2	200.00	0.50	0.40	80.00		
	20th B Cross Road		2	110.00	0.50	0.40	44.00		
	20th A Cross Road		2	115.00	0.50	0.40	46.00		
	19th Main Road		2	175.00	0.50	0.40	70.00		
	23rd Cross Road		2	120.00	0.50	0.40	48.00		
	over burden earth								
			2	30.00	1.00	0.80	48.00		
			1	25.00	1.20	1.00	30.00		
							650.00	202.92	**131898.00**
	Basic rate	82.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	198.00							
	Area Weightage 6%	4.92							
	Final Rate	**202.92**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Sahakarnagara	Sqm							
	15th Main Road		2	225.00	1.80		810.00		
	16th Main Road		2	215.00	1.80		774.00		
	22nd Cross Road		2	270.00	1.80		972.00		
	17th main Road		2	200.00	1.80		720.00		
	20th B Cross Road		2	110.00	1.80		396.00		
	20th A Cross Road		2	115.00	1.80		414.00		
	19th Main Road		2	175.00	1.80		630.00		
	23rd Cross Road		2	120.00	1.80		432.00		
	Consider 20% For R&R						1029.60		
	Consider 20% for Damaged and Missing Slabs						-205.92		
	Cover Slab								
	Sahakarnagara								
	15th Main Road		2	112.50	1.20		270.00		
	20th A Cross Road		2	80.50	1.20		193.20		
	19th Main Road		2	90.00	1.20		216.00		
	23rd Cross Road		2	84.00	1.20		201.60		
	20th main Road		2	75.00	1.20		180.00		
	Consider For R&R						1060.80		
	Consider 20% for Damaged and Missing Slabs						-212.16		
							1672.32	80.56	**134722.10**
	Basic rate	76.00							
	Area Weightage 6%	4.56							
	Final Rate	**80.56**							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider 20% for Damaged and Missing Slabs						205.92		
							205.92	665.68	**137076.83**
	Basic rate	628.00							
	Area Weightage 6%	37.68							
	Final Rate	**665.68**							
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							
	Flagging/Raising BS Slab Drain								
	Sahakarnagara								
	15th Main Road		2.00	225.00	0.15	0.10	6.75		
	16th Main Road		2.00	215.00	0.15	0.10	6.45		
	22nd Cross Road		2.00	270.00	0.15	0.10	8.10		
	17th main Road		2.00	200.00	0.15	0.10	6.00		
	20th B Cross Road		2.00	110.00	0.15	0.10	3.30		
	20th A Cross Road		2.00	115.00	0.15	0.10	3.45		
	19th Main Road		2.00	175.00	0.15	0.10	5.25		
	23rd Cross Road		2.00	120.00	0.15	0.10	3.60		
	Sahakarnagara								
	15th Main Road		2.00	225.00	0.45	0.10	20.25		
	16th Main Road		2.00	215.00	0.45	0.10	19.35		
	22nd Cross Road		2.00	270.00	0.45	0.10	24.30		
	17th main Road		2.00	200.00	0.45	0.10	18.00		
	20th B Cross Road		2.00	110.00	0.45	0.10	9.90		
	20th A Cross Road		2.00	115.00	0.45	0.10	10.35		
	19th Main Road		2.00	175.00	0.45	0.10	15.75		
	23rd Cross Road		2.00	120.00	0.45	0.10	10.80		
							171.60	5348.76	**917847.22**
	Basic rate	5046.00							
	Area Weightage 6%	302.76							
	Final Rate	**5348.76**							
5	KSRRB 5-14: Providing and Constructing precast concrete solid blocks with compressive strength not less than 3.5 Newton/sqm with cement mortor 1:4 masonry (quoin, jamb, closer blocks) with solid concrete blocks of size 40X15X20 cms confirming to I.S:2185/1965 in superstructure including cost of materials, labor charges, scaffolding, curing complete as per specifications (P.No.25, I.No.5.26.2 of PW, P&IWTD SR 2016-17)								
	Flagging Course / Raising of BS Drain	Sqm							
	Sahakarnagara								
	15th Main Road		2.00	225.00		0.20	90.00		
	16th Main Road		2.00	215.00		0.20	86.00		
	22nd Cross Road		2.00	270.00		0.20	108.00		
	17th main Road		2.00	200.00		0.20	80.00		
	20th B Cross Road		2.00	110.00		0.20	44.00		
	20th A Cross Road		2.00	115.00		0.20	46.00		
	19th Main Road		2.00	175.00		0.20	70.00		
	23rd Cross Road		2.00	120.00		0.20	48.00		
							572.00	961.42	**549932.24**
	Basic rate	907.00							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Area Weightage 6%	54.42							
	Final Rate	**961.42**							
6	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Flagging Course / Raising of BS Drain	Cum							
	Sahakarnagara								
	15th Main Road		2.00	225.00	0.45	0.23	46.58		
	16th Main Road		2.00	215.00	0.45	0.23	44.51		
	22nd Cross Road		2.00	270.00	0.45	0.23	55.89		
	17th main Road		2.00	200.00	0.45	0.23	41.40		
	20th B Cross Road		2.00	110.00	0.45	0.23	22.77		
	20th A Cross Road		2.00	115.00	0.45	0.23	23.81		
	19th Main Road		2.00	175.00	0.45	0.23	36.23		
	23rd Cross Road		2.00	120.00	0.45	0.23	24.84		
							296.01	4438.22	**1313757.50**
	Basic rate	4187.00							
	Area Weightage 6%	251.22							
	Final Rate	**4438.22**							
7	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Sahakarnagara	Sqm							
	15th Main Road		2	225.00		0.23	103.50		
	16th Main Road		2	215.00		0.23	98.90		
	22nd Cross Road		2	270.00		0.23	124.20		
	17th main Road		2	200.00		0.23	92.00		
	20th B Cross Road		2	110.00		0.23	50.60		
	20th A Cross Road		2	115.00		0.23	52.90		
	19th Main Road		2	175.00		0.23	80.50		
	23rd Cross Road		2	120.00		0.23	55.20		
							657.80	102.82	**67635.00**
	Basic rate	97.00							
	Area Weightage 6%	5.82							
	Final Rate	**102.82**							
8	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
	Sahakarnagara								
	15th Main Road		2.00	225.00	0.15	0.075	5.06		
	16th Main Road		2.00	215.00	0.15	0.075	4.84		
	22nd Cross Road		2.00	270.00	0.15	0.075	6.08		
	17th main Road		2.00	200.00	0.15	0.075	4.50		
	20th B Cross Road		2.00	110.00	0.15	0.075	2.48		
	20th A Cross Road		2.00	115.00	0.15	0.075	2.59		
	19th Main Road		2.00	175.00	0.15	0.075	3.94		
	23rd Cross Road		2.00	120.00	0.15	0.075	2.70		
	Sahakarnagara								
	15th Main Road		2.00	225.00	0.45	0.075	15.19		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	16th Main Road		2.00	215.00	0.45	0.075	14.51		
	22nd Cross Road		2.00	270.00	0.45	0.075	18.23		
	17th main Road		2.00	200.00	0.45	0.075	13.50		
	20th B Cross Road		2.00	110.00	0.45	0.075	7.43		
	20th A Cross Road		2.00	115.00	0.45	0.075	7.76		
	19th Main Road		2.00	175.00	0.45	0.075	11.81		
	23rd Cross Road		2.00	120.00	0.45	0.075	8.10		
	Basic rate	5441.00					**128.70**	5767.46	**742272.10**
	Area Weightage 6%	326.46							
	Final Rate	**5767.46**							
9	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	For BS Slab Cover	Sqm							
	For BS Slab Drain						212.16		
	Sahakarnagara								
	15th Main Road								
	16th Main Road		2.00	225.00	1.20		540.00		
	22nd Cross Road		2.00	215.00	1.20		516.00		
	17th main Road		2.00	270.00	1.20		648.00		
	20th B Cross Road		2.00	200.00	1.20		480.00		
	20th A Cross Road		2.00	110.00	1.20		264.00		
	19th Main Road		2.00	115.00	1.20		276.00		
	23rd Cross Road		2.00	175.00	1.20		420.00		
	Deduct available		2.00	120.00	1.20		288.00		
							-1060.80		
	Basic rate	779.00					**2583.36**	825.74	**2133183.69**
	Area Weightage 6%	46.74							
	Final Rate	**825.74**							
10	KSRB 5-9 : Providing chamfering edges to stone slab 2.5 cms. wide as per specifications. (only chamfered length shall be recorded) KBS 5.1.13 (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	For BS Slab Cover	m							
	For BS Slab Drain		1	177.00		3.60	637.20		
	Sahakarnagara								
	15th Main Road		2.00	375.00		3.60	2700.00		
	16th Main Road		2.00	358.00		3.60	2577.60		
	22nd Cross Road		2.00	450.00		3.60	3240.00		
	17th main Road		2.00	333.00		3.60	2397.60		
	20th B Cross Road		2.00	183.00		3.60	1317.60		
	20th A Cross Road		2.00	192.00		3.60	1382.40		
	19th Main Road		2.00	292.00		3.60	2102.40		
	23rd Cross Road		2.00	200.00		3.60	1440.00		
	Basic rate	35.00					**17794.80**	37.10	**660187.08**
	Area Weightage 6%	2.10							
	Final Rate	**37.10**							
11	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Sahakarnagara	Sqm							
	15th Main Road		1.00	225.00	5.80	--	1305.00		
	16th Main Road		1.00	215.00	5.55	--	1193.25		
	22nd Cross Road		1.00	270.00	5.60	--	1512.00		
	17th main Road		1.00	200.00	5.70	--	1140.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	20th B Cross Road		1.00	110.00	5.90	--	649.00		
	20th A Cross Road		1.00	115.00	7.50	--	862.50		
	19th Main Road		1.00	175.00	5.90	--	1032.50		
	23rd Cross Road		1.00	120.00	5.80	--	696.00		
							8390.25	3.18	**26681.00**
	Basic rate	3.00							
	Area Weightage 6%	0.18							
	Final Rate	**3.18**							
12	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying BC	Sqm							
	15th Main Road		1.00	225.00	5.80	--	1305.00		
	16th Main Road		1.00	215.00	5.55	--	1193.25		
	22nd Cross Road		1.00	270.00	5.60	--	1512.00		
	17th main Road		1.00	200.00	5.70	--	1140.00		
	20th B Cross Road		1.00	110.00	5.90	--	649.00		
	20th A Cross Road		1.00	115.00	7.50	--	862.50		
	19th Main Road		1.00	175.00	5.90	--	1032.50		
	23rd Cross Road		1.00	120.00	5.80	--	696.00		
							8390.25	12.72	**106723.98**
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Final Rate	**12.72**							
13	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	For Laying BC	0 Cum							
	15th Main Road		1	225.00	5.80	0.04	52.20		
	16th Main Road		1	215.00	5.55	0.04	47.73		
	22nd Cross Road		1	270.00	5.60	0.04	60.48		
	17th main Road		1	200.00	5.70	0.04	45.60		
	20th B Cross Road		1	110.00	5.90	0.04	25.96		
	20th A Cross Road		1	115.00	7.50	0.04	34.50		
	19th Main Road		1	175.00	5.90	0.04	41.30		
	23rd Cross Road		1	120.00	5.80	0.04	27.84		
							335.61	8118.54	**2724663.21**
	Basic rate (issue Rate)	7659.00							
	Area Weightage 6%	459.54							
	Final Rate	**8118.54**							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
14	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	1430.00	0.10	--	286.00		
							286.00	542.72	**155217.92**
	Basic rate	512.00							
	Area Weightage 6%	30.72							
	Final Rate	**542.72**							
							Total Construction Cost		**9801797.860**
15							**Cost towards PMC / Third Party inspection LS**		**196036.00**
								Sub Total	**9997833.86**
16							**Miscellaneous and rounding off**		**2166.14**
								Total	**10000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer | Assistant Executive Engineer 16/6/2018 | Executive Engineer 18/6/18

BRUHAT BANGALORE MAHANAGARA PALIKE

Project:11. Improvement to Roads and Drains of Byregowda Layout and other Surrounding area in Ward No.07 Byatarayanapura

Est Cost: =50.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Byregowda Layout								
	1st Cross Road		2	135.00	0.50	0.40	54.00		
	Cross Road -1		2	30.00	0.50	0.40	12.00		
	Cross Road -2		2	30.00	0.50	0.40	12.00		
	Cross Road -3		2	30.00	0.50	0.40	12.00		
	Road No 3		2	44.00	0.50	0.40	17.60		
	Road No 4		2	45.00	0.50	0.40	18.00		
	Sahakarnagar								
	20th main Road		2	230.00	0.50	0.40	92.00		
	21st Main road		2	215.00	0.50	0.40	86.00		
							303.60	202.92	**61606.51**
	Basic rate	82.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	198.00							
	Area Weightage 6%	4.92							
	Final Rate	**202.92**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Byregowda Layout	Sqm							
	1st Cross Road		2	135.00	1.80		486.00		
	Cross Road -1		2	30.00	1.80		108.00		
	Cross Road -2		2	30.00	1.80		108.00		
	Cross Road -3		2	30.00	1.80		108.00		
	Road No 3		2	44.00	1.80		158.40		
	Road No 4		2	45.00	1.80		162.00		
	Sahakarnagar								
	20th main Road		2	230.00	1.80		828.00		
	21st Main road		2	215.00	1.80		774.00		
	Consider 20% For R&R						546.48		
	Consider 20% for Damaged and Missing Slabs						-109.30		
	Cover Slab								
	Byregowda Layout								
	1st Cross Road		1	135.00	1.20		162.00		
	Cross Road -1		2	30.00	1.20		72.00		
	Cross Road -2		2	30.00	1.20		72.00		
	Cross Road -3		2	30.00	1.20		72.00		
	Road No 4		2	31.50	1.20		75.60		
	Consider For R&R						453.60		
	Consider 20% for Damaged and Missing Slabs						-90.72		
							800.06	80.56	**64453.16**
	Basic rate	76.00							
	Area Weightage 6%	4.56							
	Final Rate	**80.56**							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider 20% for Damaged and Missing Slabs						109.30		
							109.30	665.68	**72756.16**
	Basic rate	628.00							
	Area Weightage 6%	37.68							
	Final Rate	**665.68**							
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							
	1st Cross Road		2.00	135.00	0.15	0.10	4.05		
	Cross Road -1		2.00	30.00	0.15	0.10	0.90		
	Cross Road -2		2.00	30.00	0.15	0.10	0.90		
	Cross Road -3		2.00	30.00	0.15	0.10	0.90		
	Road No 3		2.00	44.00	0.15	0.10	1.32		
	Road No 4		2.00	45.00	0.15	0.10	1.35		
	Sahakarnagar								
	20th main Road		2.00	230.00	0.15	0.10	6.90		
	21st Main road		2.00	215.00	0.15	0.10	6.45		
	1st Cross Road		2.00	135.00	0.45	0.10	12.15		
	Cross Road -1		2.00	30.00	0.45	0.10	2.70		
	Cross Road -2		2.00	30.00	0.45	0.10	2.70		
	Cross Road -3		2.00	30.00	0.45	0.10	2.70		
	Road No 3		2.00	44.00	0.45	0.10	3.96		
	Road No 4		2.00	45.00	0.45	0.10	4.05		
	Sahakarnagar								
	20th main Road		2.00	230.00	0.45	0.10	20.70		
	21st Main road		2.00	215.00	0.45	0.10	19.35		
							91.08	5348.76	**487165.06**
	Basic rate	5046.00							
	Area Weightage 6%	302.76							
	Final Rate	**5348.76**							
5	KSRRB 5-14: Providing and Constructing precast concrete solid blocks with compressive strength not less than 3.5 Newton/sqm with cement mortor 1:4 masonry (quoin, jamb, closer blocks) with solid concrete blocks of size 40X15X20 cms confirming to I.S:2185/1965 in superstructure including cost of materials, labor charges, scaffolding, curing complete as per specifications (P.No.25, I.No.5.26.2 of PW, P&IWTD SR 2016-17)								
	Flagging Course / Raising of BS Drain	Sqm							
	Byregowda Layout								
	1st Cross Road		2.00	135.00		0.20	54.00		
	Cross Road -1		2.00	30.00		0.20	12.00		
	Cross Road -2		2.00	30.00		0.20	12.00		
	Cross Road -3		2.00	30.00		0.20	12.00		
	Road No 3		2.00	44.00		0.20	17.60		
	Road No 4		2.00	45.00		0.20	18.00		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Sahakarnagar								
	20th main Road		2.00	230.00		0.20	92.00		
	21st Main road		2.00	215.00		0.20	86.00		
							303.60	961.42	**291887.11**
	Basic rate	907.00							
	Area Weightage 6%	54.42							
	Final Rate	**961.42**							
6	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Flagging Course / Raising of BS Drain	Cum							
	Byregowda Layout								
	1st Cross Road		2.00	135.00	0.45	0.23	27.95		
	Cross Road -1		2.00	30.00	0.45	0.23	6.21		
	Cross Road -2		2.00	30.00	0.45	0.23	6.21		
	Cross Road -3		2.00	30.00	0.45	0.23	6.21		
	Road No 3		2.00	44.00	0.45	0.23	9.11		
	Road No 4		2.00	45.00	0.45	0.23	9.32		
	Sahakarnagar								
	20th main Road		2.00	230.00	0.45	0.23	47.61		
	21st Main road		2.00	215.00	0.45	0.23	44.51		
							157.11	4438.22	**697302.06**
	Basic rate	4187.00							
	Area Weightage 6%	251.22							
	Final Rate	**4438.22**							
7	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Byregowda Layout	Sqm							
	1st Cross Road		2.00	135.00		0.23	62.10		
	Cross Road -1		2.00	30.00		0.23	13.80		
	Cross Road -2		2.00	30.00		0.23	13.80		
	Cross Road -3		2.00	30.00		0.23	13.80		
	Road No 3		2.00	44.00		0.23	20.24		
	Road No 4		2.00	45.00		0.23	20.70		
	Sahakarnagar								
	20th main Road		2.00	230.00		0.23	105.80		
	21st Main road		2.00	215.00		0.23	98.90		
							349.14	102.82	**35898.57**
	Basic rate	97.00							
	Area Weightage 6%	5.82							
	Final Rate	**102.82**							
8	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
	1st Cross Road		2.00	135.00	0.15	0.075	3.04		
	Cross Road -1		2.00	30.00	0.15	0.075	0.68		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Cross Road -2		2.00	30.00	0.15	0.075	0.68		
	Cross Road -3		2.00	30.00	0.15	0.075	0.68		
	Road No 3		2.00	44.00	0.15	0.075	0.99		
	Road No 4		2.00	45.00	0.15	0.075	1.01		
	Sahakarnagar								
	20th main Road		2.00	230.00	0.15	0.075	5.18		
	21st Main road		2.00	215.00	0.15	0.075	4.84		
	1st Cross Road		2.00	135.00	0.45	0.075	9.11		
	Cross Road -1		2.00	30.00	0.45	0.075	2.03		
	Cross Road -2		2.00	30.00	0.45	0.075	2.03		
	Cross Road -3		2.00	30.00	0.45	0.075	2.03		
	Road No 3		2.00	44.00	0.45	0.075	2.97		
	Road No 4		2.00	45.00	0.45	0.075	3.04		
	Sahakarnagar								
	20th main Road		2.00	230.00	0.45	0.075	15.53		
	21st Main road		2.00	215.00	0.45	0.075	14.51		
							68.31	5767.46	**393975.19**
	Basic rate	5441.00							
	Area Weightage 6%	326.46							
	Final Rate	**5767.46**							
9	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	Sahakarnagar								
	20th main Road		2.00	230.00	1.20		552.00		
	21st Main road		2.00	215.00	1.20		516.00		
							1068.00	1738.00	**1856184.00**
	Data Rate	1738							
10	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	For BS Slab Cover	Sqm							
	For BS Slab Drain						90.72		
	1st Cross Road		1.00	135.00	1.20		162.00		
							252.72	825.74	**208681.01**
	Basic rate	779.00							
	Area Weightage 6%	46.74							
	Final Rate	**825.74**							
11	KSRB 5-9 : Providing chamfering edges to stone slab 2.5 cms. wide as per specifications. (only chamfered length shall be recorded) KBS 5.1.13 (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	For BS Slab Cover	m							
	For BS Slab Drain		1	76.00		3.60	273.60		
	1st Cross Road		1	225.00		3.60	810.00		
							1083.60	37.10	**40201.56**
	Basic rate	35.00							
	Area Weightage 6%	2.10							
	Final Rate	**37.10**							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
12	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Byregowda Layout	Sqm							
	1st Cross Road		1.00	135.00	5.80	--	783.00		
	Cross Road -1		1.00	30.00	3.80	--	114.00		
	Cross Road -2		1.00	30.00	4.00	--	120.00		
	Cross Road -3		1.00	30.00	4.10	--	123.00		
	Road No 4		1.00	45.00	4.50	--	202.50		
	Cross Road -4		1.00	100.00	5.50		550.00		
							1892.50	3.18	**6018.15**
	Basic rate	3.00							
	Area Weightage 6%	0.18							
	Final Rate	**3.18**							
13	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	Byregowda Layout	Sqm							
	For Laying BC								
	1st Cross Road		1.00	135.00	5.80	--	783.00		
	Cross Road -1		1.00	30.00	3.80	--	114.00		
	Cross Road -2		1.00	30.00	4.00	--	120.00		
	Cross Road -3		1.00	30.00	4.10	--	123.00		
	Road No 4		1.00	45.00	4.50	--	202.50		
	Cross Road -4		1.00	100.00	5.50	--	550.00		
							1892.50	12.72	**24072.60**
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Final Rate	**12.72**							
14	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Byregowda Layout	Cum							
	For Laying BC								
	1st Cross Road		1	135.00	5.80	0.04	31.32		
	Cross Road -1		1	30.00	3.80	0.04	4.56		
	Cross Road -2		1	30.00	4.00	0.04	4.80		
	Cross Road -3		1	30.00	4.10	0.04	4.92		
	Road No 4		1	45.00	4.50	0.04	8.10		
	Cross Road -4		1	100.00	5.50	0.04	22.00		
							75.70	8118.54	**614573.48**
	Basic rate (issue Rate)	7659.00							
	Area Weightage 6%	459.54							
	Final Rate	**8118.54**							
15	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								

(14)

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Edge line	Sqm	2	370.00	0.10	--	74.00		
							74.00	542.72	**40161.28**
	Basic rate	512.00							
	Area Weightage 6%	30.72							
	Final Rate	**542.72**							
								Total Construction Cost	**4894935.910**
16								**Cost towards PMC / Third Party inspection LS**	**97899.00**
								Sub Total	**4992834.91**
17								**Miscellaneous and rounding off**	**7165.09**
								Total	**5000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer 16/5/2018

Executive Engineer 18/6/18

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 12.Improvement to Roads and Drains at UAS Layout in Ward No.07

Est Cost: =50.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	UAS Layout								
	4th Cross (Deshpanday House Road)		2	500.00	0.50	0.40	200.00		
	3rd Cross Road		2	165.00	0.50	0.40	66.00		
	1st Cross Road		2	70.00	0.50	0.40	28.00		
	over burden earth								
			1	30.00	1.00	0.80	24.00		
			2	20.00	2.00	0.80	64.00		
							382.00	202.92	**77515.44**
	Basic rate	82.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	198.00							
	Area Weightage 6%	4.92							
	Final Rate	**202.92**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	UAS Layout	Sqm							
	4th Cross (Deshpanday House Road)		2	500.00	1.80		1800.00		
	3rd Cross Road		2	165.00	1.80		594.00		
	1st Cross Road		2	70.00	1.80		252.00		
	Consider 70% For R&R						1852.20		
	Consider 35% for Damaged and Missing Slabs						-648.27		
							1203.93	80.56	**96988.60**
	Basic rate	76.00							
	Area Weightage 6%	4.56							
	Final Rate	**80.56**							
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider 35% for Damaged and Missing Slabs						648.27		
							648.27	665.68	**431540.37**
	Basic rate	628.00							
	Area Weightage 6%	37.68							
	Final Rate	**665.68**							
4	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	UAS Layout								
	4th Cross (Deshpanday House Road)		1.00	500.00	7.00	0.25	875.00		
	3rd Cross Road		1.00	165.00	5.60	0.25	231.00		
	1st Cross Road		1.00	70.00	7.50	0.25	131.25		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
							1237.25	164.76	**203849.31**
	Basic rate	46.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	162.00							
	Area Weightage 6%	2.76							
	Final Rate	**164.76**							
5	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
		Cum							
	UAS Layout								
	4th Cross (Deshpanday House Road)		1	500.00	7.00	0.25	875.00		
	3rd Cross Road		1	165.00	5.60	0.25	231.00		
	1st Cross Road		1	70.00	7.50	0.25	131.25		
							1237.25	1768.08	**2187556.98**
	Basic rate	1668.00							
	Area Weightage 6%	100.08							
	Final Rate	**1768.08**							
6	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg\sqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
		Sqm							
	UAS Layout								
	4th Cross (Deshpanday House Road)		1.00	500.00	7.00	--	3500.00		
	3rd Cross Road		1.00	165.00	5.60	--	924.00		
	1st Cross Road		1.00	70.00	7.50	--	525.00		
							4949.00	27.56	**136394.44**
	Basic rate	26.00							
	Area Weightage 6%	1.56							
	Final Rate	**27.56**							
7	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
		Sqm							
	For Laying BC								
	UAS Layout								
	4th Cross (Deshpanday House Road)		1	500.00	7.00	--	3500.00		
	3rd Cross Road		1	165.00	5.60	--	924.00		
	1st Cross Road		1	70.00	7.50	--	525.00		
							4949.00	12.72	**62951.28**
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Final Rate	**12.72**							
8	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								

(9)

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	UAS Layout	Cum							
	4th Cross (Deshpanday House Road)		1	500.00	7.00	0.04	140.00		
	3rd Cross Road		1	165.00	5.60	0.04	36.96		
	1st Cross Road		1	70.00	7.50	0.04	21.00		
							197.96	8118.54	**1607146.18**
	Basic rate (issue Rate)	7659.00							
	Area Weightage 6%	459.54							
	Final Rate	**8118.54**							
9	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	735.00	0.10	--	147.00		
	Center Line		0.5	570.00	0.10	--	28.50		
							175.50	542.72	**95247.36**
	Basic rate	512.00							
	Area Weightage 6%	30.72							
	Final Rate	**542.72**							
							Total Construction Cost		**4899189.964**
10							**Cost towards PMC / Third Party inspection LS**		**97984.00**
								Sub Total	**4997173.96**
11							**Miscellaneous and rounding off**		**2826.04**
								Total	**5000000.00**

Certificate.

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2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer 18/6/18

Executive Engineer 18/6/18